

CLAIMS

1. A rubber composition comprising 100 parts by weight of a rubber component containing a modified conjugated diene-based polymer having a fullerene bonded thereto in the molecule and a weight average molecular weight of 50,000 or more in an amount of 0.5 to 100% by weight based upon the total amount of the rubber component and 5 to 100 parts by weight of a reinforcing filler.
2. A rubber composition as claimed in claim 1, wherein the amount of the fullerene bonded to the modified conjugated diene-based polymer is 0.001 to 2 molecules per one molecular chain of the modified conjugated diene-based polymer.
3. A rubber composition as claimed in claim 1 or 2, further comprising 0.1 to 10 parts by weight of a vulcanizing agent, based upon 100 parts by weight of the rubber component.
4. A rubber composition as claimed in any one of claims 1 to 3, wherein the modified conjugated diene-based polymer is synthesized by reacting the growing terminal anions formed by an anion polymerization of the conjugated diene-based polymer and a fullerene.
5. A rubber composition as claimed in any one of claims 1 to 4, wherein the modified conjugated diene-based polymer is synthesized by reacting the growing terminal anions formed by an anion polymerization of an aromatic vinyl monomer and a conjugated diene monomer with a fullerene.
6. A rubber composition as claimed in claim 5, wherein the aromatic vinyl monomer unit forms 10 to 80% by weight of the modified conjugated diene-based polymer.